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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/777,870
Filing Date: February 12, 2004
Appellant(s): DELORME ET AL.

Charles R. Figer, Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 15 June 2010 appealing from the Office action mailed 15 January 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

a. Claims 1-7 and 28-47 are pending.

b. Claims 1-7 and 28-47 are rejected.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds

of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

a.	6,944,620	Cleraux et al	11-2002
b.	2002/0188625	Jans et al	06-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-7 and 28-47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cleraux et al (U.S. Patent No. 6,944,620, hereinafter referred to as CLERAUX), filed on 4 November 2002, and issued on 13 September 2005, in view of Jans et al (USPGPUB No. 2002/0188625, hereinafter referred to as JANS), filed on 11 June 2002, and published on 12 December 2002.

3. **As per independent claims 1, 32, 37, and 42,** CLERAUX, in combination with JANS, discloses:

A method for maintaining a data structure corresponding to an object having a first link from a first directory and a second link from a second directory in a filesystem, the object to which the data structure corresponds being selected from the group consisting of a file and a directory in the filesystem, the first and second directories being parent directories to the object to which the data structure corresponds, the method comprising the steps of:

storing in the data structure a first anchor point for the object {See CLERAUX, C5:L56-60, wherein this reads over "an internal database for the file information" and C62-65, wherein this reads over "the emulation library 220 will access its internal database to retrieve the information for that special UNIX file"} that references the first directory, said first directory implemented on a first filesystem type {See CLERAUX, C6:L11-21, wherein this reads over "the host system 190 uses a Win32 file system, and the target system 180 uses a UNIX file system"; and C7:L12-27, wherein this reads over "[t]he first directory structure 400 can be implemented on a UNIX file system"}; and

storing in the data structure a second anchor point for the object {See CLERAUX, C5:L56-60, wherein this reads over "an internal database for the file information" and C62-65, wherein this reads over "the emulation library 220 will access its internal database to retrieve the information for that special UNIX file"} that references the second directory {See CLERAUX, C7:L22-25, wherein this reads over "since the file or the directory is not on the target system 180, a pointer 402 is provided in place of the file or directory"}, said second directory implemented on a second filesystem type different than the first {See CLERAUX, C6:L11-21, wherein this reads over "the host system 190 uses a Win32 file system, and the target system 180 uses a UNIX file system"; and C7:L12-27, wherein this reads over "the second directory structure 401 can be implemented on a Win32 file system"}; and

concurrently with storing the first and second anchor points, converting the first filesystem type to the second filesystem type including activating the second directory and deleting the first directory {See JANS, [0038], wherein this reads over "the migration plug-in will be replaced by the null stub and the old repository will be removed"} while maintaining the filesystem in a full operational capacity {See CLERAUX, C6:L11-21, wherein this reads over "an exemplary configuration file of the emulation library 220 (e.g., a UNIX file library) and the emulation library 220 comprises data to emulate a UNIX file system on a Win32 file system"}.

CLERAUX discloses a system wherein hard links and soft links are used in accessing files and directories of various filesystems such as Win32 and UNIX systems. Specifically, the files and directories of one filesystem (e.g. UNIX) may be used in second filesystem (e.g. Win32) by accessing the files and directories of the UNIX system through an emulation method.

The Examiner notes that while CLERAUX fails to disclose an object having a first link from a first directory and a second link from a second directory in a filesystem such that the first and second directories are parent directories to the object, wherein CLERAUX discloses that UNIX files include hard links and soft links, it would have been obvious to one of ordinary skill in the art that said first and second anchor points may be read upon by the hard links and soft links disclosed by CLERAUX.

Additionally, it would have been obvious to one of ordinary skill in the art that said files are accessed by accessing a database of hard links and soft links (i.e. anchor points) such that the same file or directory (i.e. data structure) may be accessed by a plurality of different filesystems.

Additionally, while CLERAUX may fail to expressly disclose the feature of "activating the second directory and deleting the first directory," JANS discloses a system wherein once the new version of a data repository is installed, any old version of the service is removed, specifically, the old data repository. See JANS, Abstract. Thus, it would have been obvious to one of ordinary skill in the art to apply the technique of converting a data repository to a new version wherein the old data repository is thereafter removed as taught in JANS, to improve the multiple filesystem invention of CLERAUX for the predictable result of migrating to a new filesystem type while maintaining full operational capacity.

4. **As per dependent claims 2, 33, 38, and 43,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the object is a file {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}.

5. **As per dependent claims 3, 34, 39, and 44,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the object is a directory {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}.

6. **As per dependent claims 4, 35, 40, and 45,** it would be inherent to the claimed invention that wherein the directory is found in a filesystem, the directory is of the first filesystem implementation.

7. **As per dependent claims 5, 36, 41, and 46,** CLERAUX, in combination with JANS, discloses:

The method of claim 4, wherein the first link {See CLERAUX, C7:L22-25, wherein this reads over "since the file or the directory is not on the target system 180, a pointer 402 is provided in place of the file or directory"} from the first directory to the object is a directory link {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}

the second link {See CLERAUX, C7:L22-25, wherein this reads over "since the file or the directory is not on the target system 180, a pointer 402 is provided in place of the file or directory"} from the second directory to the object is a file link {See CLERAUX, C7:L21-25, wherein this reads over "the file or the directory}.

8. **As per dependent claims 6, 37, 42, and 47,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, further comprising the steps of:

receiving a request for information about the first link {See CLERAUX, C5:L44-46, wherein this reads over "the OS 61.1 detects that needed information is not in memory}; and

in response to the request, using the first anchor point when retrieving the information {See CLERAUX, C5:L55-65, wherein this reads over "the server process 221 queries the emulation library"}.

9. **As per dependent claim 7,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, further comprising the steps of:

receiving a request for information about the object {See CLERAUX, C5:L44-46, wherein this reads over "the OS 61.1 detects that needed information is not in memory};

selecting the first anchor point instead of the second anchor point to respond to the request {See CLERAUX, C5:L62-65, wherein this reads over "if the requested file is a special UNIX file, such as a device file, the emulation library 220 will access its internal database to retrieve information for that special UNIX file"}.

10. **As per dependent claim 28,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the second filesytem type is a newer version of the first filesytem type {See CLERAUX, C1:L29-50, wherein this reads over "Windows NT uses Win32 file systems, such as FAT, or NTFS"}.

11. **As per dependent claim 29,** CLERAUX, in combination with JANS, discloses:

The method of claim 28, wherein the second filesystem type is NTFS, and the first filesystem type is FAT32 {See CLERAUX, C1:L29-50, wherein this reads over "Windows NT uses Win32 file systems, such as FAT, or NTFS"}.

12. **As per dependent claim 30,** CLERAUX, in combination with JANS, discloses:

The method of claim 1, wherein the first and second filesystem types are associated with different operating systems {See CLERAUX, C55:L19-25, wherein this reads over "if the host file system format is a Win32 file system and the target file system format is a UFS file system"}.

13. **As per dependent claim 31,** CLERAUX, in combination with JANS, discloses:

The method of claim 30, wherein the first filesystem type is associated with an HP-UX system, and the second filesystem type is associated with a Windows operating system {See CLERAUX, C55:L19-25, wherein this reads over "if the host file system format is a Win32 file system and the target file system format is a UFS file system"}.

The Examiner notes that the Unix filesystem of Cleraux would read upon the HP-UX system recited in the present claim since the HP-UX system is simply a proprietary variant of a Unix filesystem.

(10) Response to Argument

a. Rejection of claim 1 under 35 U.S.C. 103 over Cleraux in view of Jans

i. *Cleraux disclose an invention having an object with two anchor points to two corresponding directories, each implemented on different filesystem types.*

Appellant asserts the argument that "Cleraux fails to disclose an object having a first anchor point referencing a first directory on a first filesystem type and a second anchor point referencing a second directory on a second filesystem type different than the first." See Appeal Brief, page 7. The Examiner respectfully disagrees.

Firstly, it is noted that Cleraux discloses a system comprising a plurality of filesystem types wherein "the host file system format is a Win32 file system and the target file system format is a UFS file system." See Cleraux, col. 5, lines 9-25. Cleraux further discloses a first and a second directory structure which are "representations of the file systems on the target system and on the host system." See Cleraux, col. 7, lines 12-27. Accordingly, it is noted that one of ordinary skill in the art would have readily read the prior art reference of Cleraux upon Appellant's claimed features of a first directory and a second directory which are implement on a first file system type and a second filesystem type respectively. That is, wherein the first directory structure is mapped to a UNIX file system and the second directory structure is mapped to a Win32 file system, it would have been obvious and apparent to one of ordinary skill in the art that Cleraux would indeed disclose a system which read upon Appellant's claimed invention of a plurality of directory structures which are implemented using a plurality of filesystem types.

Secondly, it is noted that Cleraux discloses a system wherein said directory structures contain a plurality of files and pointers which one of ordinary skill in the art may interpret to read upon Appellant's "anchor points". That is, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In this case, the claimed "anchor points" may

be interpreted and construed to be read upon by any placeholder for a file such as a filename and/or a pointer within a directory. Cleraux discloses a host system (i.e. a data structure) wherein a file to be accessed is addressed to a specific directory structure (i.e. a first anchor point). Cleraux further discloses that if "the file or the directory is not on the target system, a pointer is provided in place of the file" wherein the pointer "points to the corresponding file or directory on the second directory structure" which is of a second filesystem type. That is, "the pointer" (i.e. the second anchor point) is used to access a second directory which is of a second file system type such that the retrieved file may be used by the emulator and converted into a file representation which may be used by the first filesystem type.

Cleraux presents an exemplary embodiment wherein when the target OS needs a particular file or directory, it looks for the file in the first directory structure using the first anchor point (i.e. an OS address to the particular file or directory). Wherein the file is not present with the first directory structure, a pointer (i.e. the second anchor point) is found as a placeholder within the first directory structure. Said pointer links to a second directory structure of a second filesystem type and is used to retrieve the relevant file and data needed by the target OS. Accordingly, it would have been obvious to one of ordinary skill in the art that the disclosed invention of Cleraux would read upon the claimed invention of "an object having a first anchor point referencing a first directory on a first filesystem type and a second anchor point referencing a second directory on a second filesystem type different than the first."

ii. *Cleraux discloses and suggests converting a filesystem from one filesystem type to a second filesystem type while maintaining the filesystem in full operation capacity.*

Appellant asserts the argument that Cleraux fails to "disclose or suggest converting a filesystem from one filesystem type to a second filesystem type while maintaining the filesystem in full operation capacity." See Appeal Brief, page 8. The Examiner respectfully disagrees.

Cleraux discloses a Win32 filesystem which may emulate a second filesystem such as a UNIX OS. See Cleraux, col. 11, lines 11-50. Specifically, Cleraux discloses that "the directory structure on the host system (e.g., a Win32 file system) can be generated so that it emulates a UNIX directory system." See Cleraux, col. 11, lines 11-22. That is, the files of a UNIX filesystem may be converted and used by the emulator of the Win32 filesystem such that files that are not supported by the Win32 filesystem may be utilized in their non-native format. See Cleraux, col. 11, lines 28-39. Accordingly, it would have been obvious to one of ordinary skill in the art that the retrieval of a UNIX file and subsequent use of said file within a Win32 filesystem environment would read upon the claimed feature of "converting a filesystem from one filesystem type to a second filesystem type." That is, wherein Cleraux discloses that "to emulate, on the host system, a file in a non-native format (e.g., a UNIX file on a Win32 filesystem), the file is written to the host system and data relating to any characteristics of the file are written to the emulation library," it would have been obvious to one of ordinary skill in the art that said emulation of the UNIX file within a Win32 filesystem would indeed involve the conversion of a first filesystem (e.g., UNIX) into a second filesystem (e.g., Win32).

While Appellant asserts the argument that the emulation of file fails to read upon the conversion of said file, the Examiner respectfully disagrees. That is, wherein a file of a first filesystem is retrieved and translated by an emulator using an emulation library, it would have been apparent to one of ordinary skill in the art that said file would have been converted.

iii. *The feature of converting a first filesystem type to a second filesystem type concurrently with storing first and second anchor points is not supported.*

Appellant asserts the argument that Cleraux fails to disclose converting a first filesystem type "concurrently with storing first and second anchor points." See Appeal Brief, page 8. The

Examiner notes that the instant Specification fails to provide support for the feature of converting filesystem and storing anchor points concurrently.

iv. *The combination of Cleraux and Jans discloses the feature of activating the second directory and deleting the first directory.*

Appellant asserts the argument that the combination of Cleraux and Jans fails to "disclose activating the second directory and deleting the first directory." See Appeal Brief, page 8. The Examiner respectfully disagrees. Wherein Jans discloses an invention for rolling-over data versions from a first version to a second version such that any old versions are removed, it would have been obvious to one of ordinary skill in the art that Jan would indeed disclose the activation of a second directory and the deletion of the first directory. See Jan, Abstract. Specifically, Jans discloses that "the old application Version is removed or uninstalled from the various servers." See Jans, [0048]. Accordingly, wherein a particular version of data, which may be in the form of a file or directory, is removed from a server and replaced with a newer version of data, it would have been obvious to one of ordinary skill in the art that Jans, in combination with Cleraux, would indeed disclose a system wherein newer directories are activated and older directories are deleted.

Additionally, Appellant asserts the argument that "the Examiner has provided no credible explanation as to why one of ordinary skill in the art would have been motivated to modify Cleraux in the manner suggested by the Examiner." See Appeal Brief, page 9. The Examiner respectfully disagrees.In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to one of ordinary skill in the art to apply the technique of converting a data repository to a new version wherein the old data repository is thereafter removed as taught in Jans, to improve the multiple filesystem invention of Cleraux for the predictable result of migrating to a new filesystem type while maintaining full operational capacity. That is, while Cleraux discloses a system for emulating files of a different filesystem type, Cleraux further discloses the retrieval of relevant data from a second filesystem such that the relevant data is thereafter stored on the first filesystem for use. Accordingly, wherein Jans teaches the migration of newer versions of data onto a filesystem, it would have been obvious to one of ordinary skill in the art to improve the invention of Cleraux with said feature for the predictable result of directly accessing the second directory implementation. That is, wherein Cleraux teaches that pointers (i.e. anchor points) are used to retrieve relevant data from another source, the combination of Cleraux and Jans would have been an improvement in that the data from another source may be migrated onto the host source. The migration of said data would eliminate the need for the host source to subsequently repeat the retrieval from another source but instead allow the host source to thereafter directly access the needed data on its own storage.

b. Rejection of claims 32 and 37 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above. Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

c. Rejection of claim 42 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above. Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

d. Rejection of claims 2 and 7 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above. Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

e. Rejection of claim 28 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above. Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

f. Rejection of claim 29 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above. Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

g. Rejection of claim 31 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above. Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

h. Rejection of claims 33-36, 28-41, and 43-47 under 35 U.S.C. 103 over Cleraux in view of Jans

Appellant relies upon the arguments related to those of claim 1 as set forth above.

Accordingly, the Examiner maintains his response to said argument as found above in subparagraph (a).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Paul Kim/

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